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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,555	04/30/2001	Keishi Danjo	35.G2791	7015

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EXAMINER

HARPER, HOLLY R

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,555

Applicant(s)

DANJO ET AL.

Examiner

Holly R. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-27 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 28-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/30/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment, filed on 1/8/04, has been entered and acknowledged by the Examiner.

Claims 1, 3, 5, 6, 11-14, 18, 20, 22, 23, and 29 have been amended.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-10, and 28-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Shibata (USPN 6,586,872 B2).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

In regard to claims 1-6, the Shibata reference discloses an image display device (Column 3, Lines 10-16) with an electron source (Figure 2B, Element 4) and an image display member

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(Figure 20). There is a precursor made of a substrate (Figure 2B, Element 1) and an insulating film (Figure 2B, Element 6). The film is a metallic oxide where the oxide is nickel, iron, or cobalt and the principle component is silica (SiO_2). The film is a fine particle film (Column 4, Lines 66- Column 5, Lines 7). This film can act as an anti-static, sodium blocking, and insulating film. The film is on a surface of the substrate at a region where electron-emitting devices are disposed (Figure 10, Element 91) but not on a region of a surface where the supporting frame is located (Figure 10, Element 102).

In regard to claim 8, the Shibata reference discloses that the metal oxide is particulate (Column 5, Line 2).

In regard to claim 9, the Shibata reference discloses that the metal oxide is nickel, iron, or cobalt oxides (Column 5, Lines 5-6). These are electroconductive.

In regard to claim 10, the Shibata reference discloses that the metal oxide is nickel, iron, or cobalt oxides (Column 5, Lines 5-6).

In regard to claim 28, the Shibata reference discloses an electron source made from a precursor and an electron-emitting element disposed on the precursor (Figure 2B, Elements 1, 6, and 4).

In regard to claim 29, the Shibata reference discloses a conductive film having an electron-emitting portion (Column 6, Lines 39-43).

In regard to claim 30, the Shibata reference discloses that the electron emitting devices are wired in a matrix configuration through a plurality of row and column direction wires (Figure 20).

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In regard to claim 31, the Shibata reference discloses an image display device with a precursor and an electron-emitting device on the precursor (Figure 2B) and an image display member (Figure 20, Element 186).

In regard to claim 32, the Shibata reference discloses a supporting member coupling the electron source to the image display member (Figure 20, Element 182).

In regard to claim 33, the Shibata reference discloses a conductive film having an electron-emitting portion (Column 6, Lines 39-43).

In regard to claim 34, the Shibata reference discloses that the electron emitting devices are wired in a matrix configuration through a plurality of row and column direction wires (Figure 20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata (USPN 6,586,872 B2) in view of Brandes et al. (USPN 6,031,250).

In regard to claim 7, the Shibata reference discloses a film that is a metallic oxide where the oxide is nickel, iron, or cobalt and the principle component is silica (SiO₂). The film is a fine particle film (Column 4, Lines 66- Column 5, Lines 7). The Shibata reference is silent to the use of an additional silica layer on top of the film. The Brandes reference teaches that there can be

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more than one layer of silicon dioxide on the substrate to planarize the surface (Column 7, Lines 39-47). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate an additional silica layer on top of the silica layer with metal oxide, as taught by Brandes, to help planarize the surface.

Allowable Subject Matter

5. Claims 11-27 are allowed.

6. The following is an examiner's statement of reasons for allowance:

Regarding claim 11, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 11, and specifically comprising the limitation of a precursor to an electron source having an antistatic film on a part of the surface of a substrate and a getter film on a different part of the surface of a substrate.

Regarding claim 12, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 12, and specifically comprising the limitation of a precursor to an electron source having a sodium blocking film on a part of the surface of a substrate and a getter film on a different part of the surface of a substrate.

Regarding claim 13, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 13, and specifically comprising the limitation of a precursor to an electron source having an insulating film containing a metal oxide on a part of the surface of a substrate and a getter film on a different part of the surface of a substrate.

Regarding claim 14, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 14, and specifically comprising the limitation

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of a precursor to an electron source having an SiO₂ film containing a metal oxide on a part of the surface of a substrate and a getter film on a different part of the surface of a substrate.

Regarding claims 15-17, claims 15-17 are allowable for the reasons given in claim 14 because of their dependency status from claim 14.

Regarding claim 18, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 18, and specifically comprising the limitation of a precursor to an electron source having an antistatic film on a part of the surface of a substrate, a getter film on a different part of the surface of a substrate, and a supporting frame on the substrate that contacts neither the antistatic film nor the getter film.

Regarding claim 19, claim 19 is allowable for the reasons given in claim 18 because of its dependency status from claim 18.

Regarding claim 20, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 20, and specifically comprising the limitation of a precursor to an electron source having a sodium blocking film on a part of the surface of a substrate, a getter film on a different part of the surface of a substrate, and a supporting frame on the substrate that contacts neither the sodium blocking film nor the getter film.

Regarding claim 21, claim 21 is allowable for the reasons given in claim 20 because of its dependency status from claim 20.

Regarding claim 22, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 22, and specifically comprising the limitation of a precursor to an electron source having an insulating film containing a metal oxide on a part of the surface of a substrate, a getter film on a different part of the surface of a substrate, and a

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supporting frame on the substrate that contacts neither the insulating film with a metal oxide nor the getter film.

Regarding claim 23, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 23, and specifically comprising the limitation of a precursor to an electron source having an SiO₂ film containing a metal oxide on a part of the surface of a substrate, a getter film on a different part of the surface of a substrate, and a supporting frame on the substrate that contacts neither the SiO₂ film with metal oxide nor the getter film.

Regarding claims 24-27, claims 24-27 are allowable for the reasons given in claim 23 because of their dependency status from claim 23.

Response to Arguments

7. Applicant's arguments filed 1/8/04, with respect to claims 1-6, 8-10, and 28-34, have been fully considered but they are not persuasive.

Regarding applicant's argument that Shibata does not disclose the specified film being on a substrate but not in an area where the supporting frame is located, the examiner respectfully disagrees. Figure 10 shows that the film is found above element 91, which is on the rear plate 101, but the supporting frame 102 is attached to the rear plate 101, where the film is not located.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Harper whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Holly Harper
Patent Examiner
Art Unit 2879



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